

**In The United States Patent and Trademark Office**

In Application of : Philip E. Eggers, et al.  
Serial No. : 10/733,970  
Filed: : December 11, 2003  
For: : System, Method, and Apparatus for Evaluating Tissue  
Temperature  
TC/AU : 3739  
Examiner :  
Attorney Docket No. : CAL 2-018

COMMISSIONER FOR PATENTS  
MAIL STOP PATENT APPLICATION  
P.O. BOX 1450  
ALEXANDRIA, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

This Information Disclosure Statement is filed in conformity with 37 C.F.R. §§ 1.56, 1.97 and 1.98. Accordingly, copies of the art cited herein are provided.

**REMARKS**

The following list of patents and publications is being submitted in addition to form PTO-1449 to assist the Examiner in the consideration of the cited disclosures. For organizational purposes only, the patents and publications have been segregated into subject categories and placed in reverse chronological order to further assist the Examiner when considering these citations. Therefore, no inference or limitation as to the materiality of these citations should be drawn from the organization of the citations as submitted.

A concise explanation of the relevance of the individual citation is included below for citations not published in the English language.

The citations have been given a unique citation number within subject categories for purposes of clarity only. The citation numbers have generally been kept consistent with the citation numbers used in applications to which the instant application claims priority. For that reason there may nonconsecutive citation numbers in certain categories. Where a number appears in parentheses (i.e. (##)) preceding the citation, the parenthetical number references a

specific citation to that paper within the patent specification. Some citations may have relevance to more than one "subject category," but we have attempted to include each citation only once, and place each citation in one "subject category."

## **A. HEATING OF NEOPLASTIC TISSUE**

### **PATENTS**

- A1. United States Patent No. 6,565,887 B1 issued to Gray, *et al.*, entitled "Targeted hysteresis hyperthermia as a method for treating diseased tissue."
- A2. United States Patent Application Pub. No. US 2002/0008336 A1 by Otake et al., entitled " Ferrite Material, Method of Manufacturing the Same and Deflection Yoke Core Made from the Material"
- A3. United States Patent No. 6,451,044 issued to Naghavi, *et al.*, entitled "Method and Apparatus for heating inflamed tissue."
- A4. United States Patent No. 6,195,411 issued to Dinsmore, entitled "Miniature X-Ray Source With Flexible Probe"
- A5. United States Patent No. 6,186,941 issued to Blackwell entitled "Magnetic Coil For pulsed Electromagnetic Field"
- A6. United States Patent No. 6,174,276 issued to Blackwell entitled "Magnetic Coil For Pulsed Electromagnetic Field"
- A7. United States Patent No. 6,167,313 issued to Gray, *et al.*, entitled "Targeted hysteresis hyperthermia as a method for treating diseased tissue."
- A8. United States Patent No. 6,143,019 issued to Motamedi et al., entitled "Method For Emitting Therapeutic Energy Within Tissue"
- A9. United States Patent No. 6,139,536 issued to Mikus et al., entitled "Urological Stent Therapy System And Method"
- A10. United States Patent No. 6,083,148 issued to Williams entitled "Tumor Treatment"
- A11. United States Patent No. 6,081,749 issued to Ingle et al., entitled "Noninvasive Devices, Methods, and Systems for Shrinking of Tissues"
- A12. United States Patent No. 6,074,337 issued to Tucker et al., entitled "Combination Radioactive and Temperature Self-Regulating Thermal Seed Implant for Treating Tumors"

- A13. United States Patent No. 6,022,308 issued to Williams entitled "Tumor Treatment"
- A14. United States Patent No. 6,007,474 issued to Rydell entitled "Radioactive And/Or Thermal Seed Implantation Device"
- A15. United States Patent No. 5,976,067 issued to Tucker et al., entitled "Combination Radioactive and Temperature Self-Regulating Thermal Seed Implant for Treating Tumors"
- A16. United States Patent No. 5,928,217 issued to Mikus et al., entitled "Urological Stent Therapy System And Method"
- A17. United States Patent No. 5,906,636 issued to Casscells, III et al. entitled "Heat Treatment Of Inflamed Tissue"
- A18. United States Patent No. 5,715,837 issued to Chen, entitled "Transcutaneous electromagnetic energy transfer."
- A19. United States Patent No. 5,571,153 issued to Wallsten, entitled "Device for hyperthermia treatment."
- A20. United States Patent No. 5,468,210 issued to Matsui, *et al.*, entitled "Process of thermal treatment in tissue."
- A21. United States Patent No. 5,433,708 issued to Nichols, *et al.*, entitled "Method and device for thermal ablation having improved heat transfer."
- A22. United States Patent No. 5,429,583 issued to Paulus et al., entitled "Cobalt Palladium Seeds For Thermal Treatment Of Tumors"
- A23. United States Patent No. 5,425,731 issued to Daniel, *et al.*, entitled "Instrument for cutting, coagulating and ablating tissue."
- A24. United States Patent No. 5,251,645 issued to Fenn entitled "Adaptive Nulling Hyperthermia Array"
- A25. United States Patent No. 5,203,782 issued to Gudov, *et al.*, entitled "Method and apparatus for treating malignant tumors by local hyperpyrexia."
- A26. United States Patent No. 5,197,940 issued to Sievert et al., entitled "Local Application Tumor Treatment Apparatus"
- A27. U.S. Patent No. 5,133,710 issued to Carter, Jr., et al. entitled "Thermal seed for treatment of tumors."
- A28. United States Patent No. 5,108,359 issued to Granov, *et al.*, entitled "Hemangioma treatment method."

- A29. United States Patent No. 5,099,756 issued to Franconi, *et al.*, entitled "Radio frequency thermotherapy."
- A30. United States Patent No. 5,067,952 issued to Gudov, *et al.*, entitled "Method and apparatus for treating malignant tumors by local hyperpyrexia."
- A31. United States Patent No. 4,983,159 issued to Rand, entitled "Inductive heating process for use in causing necrosis of neoplasms at selective frequencies."
- A32. United States Patent No. 4,869,247 issued to Howard, III, *et al.*, entitled "Video tumor fighting system."
- A33. United States Patent No. 4,846,196 issued to Wiksell, *et al.*, entitled "Method and device for the hyperthermic treatment of tumors."
- A34. United States Patent No. 4,798,215 issued to Turner, entitled "Hyperthermia apparatus."
- A35. United States Patent No. 4,690,130 issued to Mirell, entitled "Electromagnetic therapy control system."
- A36. United States Patent No. 4,574,782 issued to Borrelli, *et al.*, entitled "Radio frequency induced hyperthermia for tumor therapy."
- A37. United States Patent No. 4,545,368 issued to Rand, *et al.*, entitled "Induction heating method for use in causing necrosis of neoplasm."
- A38. United States Patent No. 4,520,249 issued to Czerlinski, entitled "Method and apparatus for selective localized differential hyperthermia of a medium."
- A39. United States Patent No. 4,369,345 issued to Czerlinski, entitled "Method and apparatus for selective localized differential hyperthermia of a medium."
- A40. United States Patent No. 4,323,056 issued to Borrelli *et al.*, entitled "Radio Frequency Induced Hyperthermia For Tumor Therapy"
- A41. United States Patent No. 4,138,998 issued to Nowogrodzki entitled "Indicating Temperature Within Living Tissue"
- A42. United States Patent No. 3,948,785 issued to Berchtold entitled "Process of Manufacturing Ferrite Materials with Improved Magnetic and Mechanical Properties"
- A43. United States Patent No. 3,837,910 issued to Van der Laan *et al.*, entitled "Method of Manufacturing a Polycrystalline Ferrite Body"
- A44. United States Patent No. 3,653,385 issued to Burton, entitled "Production of focal brain lesions by inductive heating."

- A45. United States Patent No. 3,252,913 issued to Van Gils, et al., entitled "Method For Preparing Manganese-Zinc-Ferrous Ferrite"
- A46. United States Patent No. 2,958,664 issued to Vassiliev, et al., entitled "Making Manganese-Zinc Ferrites"
- A47. European Patent Application EP 0 970 724 A2 issued to Williams entitled "Tumour Treatment Apparatus"
- A48. European Patent Application EP 0 459 520 A2 issued to Saito, entitled "Electromagnetic-Wave-Operated Heating Apparatus"
- A49. European Patent Application EP 0 459 520 A3 issued to Saito entitled "Electromagnetic-Wave-Operated Heating Apparatus"
- A50. European Patent Application EP 0 152 963 A2 issued to Kraus, W., entitled "Electrotherapeutic Device."  
Describes an electrotherapeutic device using electromagnetic fields and external coils to accomplish heating of tissue. An applicator of high frequency microwave radiation is modulated by low frequency alternating voltage induced in a receiver coil attached to tissue electrodes. A translation of the abstract is attached.
- A51. UK Patent Application GB 2 102 127 A issued to Bresler et al., entitled "Determining The Position Of A Device Inside Biological Tissue"
- A52. German patent DE 34 06 565 C2 issued to Kraus, W., "A device for generating a low-frequency alternating voltage at two tissue electrodes of an implant intended for tissue regeneration."  
Describes an electrotherapeutic device using electromagnetic fields and external coils to accomplish stimulation and growth of tissue. A low frequency alternating voltage is generated in two tissue electrodes and induced in a receiver coil by means of at least one high frequency carrier. A translation of the claims is attached.
- A53. German patent DE 44 33 502 A1 issued to Kneissl, W., "Nuclear-spin tomography instrument with high-frequency therapeutic device"  
Describes an instrument with a high frequency transmitter for exciting nuclear spins. High-frequency power can be decoupled from the high-frequency transmitter and used for a high-frequency coagulator or for a heatable implant. A translation of the abstract is attached.
- A54. Russian Publication No. RU 2082458C1 issued to Evgen'evich, et al., "Method to conduct hyperthermic electromagnetic therapy of malignant neoplasm."  
Describes a method to conduct hyperthermic electromagnetic therapy of neoplastic tissue by injecting a

suspension of ferromagnetic particles with a dielectric-metal phase transition in the temperature range of 42-45°C. A translation of the abstract is attached.

- A55. International Publication No. WO 00/38 602 issued to Naghavi et al., entitled "Method And Apparatus For Heating Inflamed Tissue"

#### PUBLICATIONS

- A101. Matsui, T., et al., "A novel ferromagnetic thermo-stent for plaque stabilization that self-regulates the temperature." *IEEE Trans. Biomed. Eng.*, 49 (6): 621-623 (2002).
- A102. Magnetic Sensors and Magnetometers, edited by P. Ripka, Artech House, Inc., Norwood, MA, pp 75-127, and 380-391 (2001).
- A103. (13) Falk, et al., "Hyperthermia in Oncology" *Int. J. Hyperthermia*, 17 (1): 1-18 (2001).
- A104. Janetski, et al., "Immunization of cancer patients with autologous cancer-derived heat shock protein gp96 preparations: A pilot study." *Int. J. Cancer* 88: 232-238 (2000).
- A105. Yedavelli, S.P.K., et al., "Preventive and therapeutic effect of tumor derived heat shock protein, gp96, in an experimental prostate cancer model." *Int. J. Molecular Med.* 4: 243-248 (1999).
- A106. Cetas, et al., "A Ferrite Core/Metallic Sheath Thermoseed for Interstitial Thermal Therapies", *IEEE Trans. Biomed. Eng.*, 45 (1) (1998).
- A107. (6) Fenn, et al, "An Adaptive Microwave Phased Array For Targeted Heating Of Deep Tumors In Intact Breast: Animal Studies Results." *Int. J. Hyperthermia*, Vol. 15, No. 1, pp 45-61 (1999).
- A108. (41) Ajishi, Y., et al., "Preparation and Evaluation of Temperature-Sensitive Magnetic Thin Film With a Low Curie Temperature", *T. IEEE Japan*, Vol 118-A, (2): 158-163 (1998). (Translation from Japanese attached)
- A109. Paulus, et al., "Thermal Ablation of Canine Prostate Using Interstitial Temperature Self-Regulating Seeds: New Treatment for Prostate Cancer", *J. of Endourology* 11 (4)s: 295-300 (1997).
- A110. (10) Arkin, H. et al., "Recent Developments in Modeling Heat Transfer in Blood Perfused Tissues," *IEEE Transactions on Bio-Medical Engineering* 41 (2) 97-107 (1994).
- A111. Feldmann, H.J., et al., "Deep regional hyperthermia comparison between the annular phased array and the Sigma-60 applicator in the same patients." *Int. J. Radiation. Oncol. Biol. Phys.* 26: 111-116 (1993).

- A112. Wu, B., et al., "Antitumor effect of interleukin 7 in combination with local hyperthermia in mice bearing B16a melanoma cells." *Stem Cells* 11: 412-421 (1993) [ABSTRACT ONLY]
- A113. (8) Haider, et al., "Power Absorption in Ferromagnetic Implants from Radio Frequency Magnetic Fields and the Problem of Optimization." *IEEE Transactions On Microwave Theory and Techniques* 39: 1817-1827 (1991).
- A114. (40) Hynynen, et al., "Hyperthermia in Cancer Treatment" *Investigative Radiology* 25: 824-834 (1990).
- A115. (7) Brezovich, et al., "Practical Aspects of Ferromagnetic Thermosteered Hyperthermia," *Radiologic Clinics of North America* 27:589-682 (1989).
- A116. Stuchly, et al., "Measurements of Electromagnetic Fields In Biomedical Applications", *CRC Critical Reviews in Biomedical Engineering*, 14 (3): 241-288 (1987).
- A117. Matsuki, and Murakami "High quality soft heating method utilizing temperature dependence of permeability and core loss of low Curie temperature ferrite." *IEEE Transactions on Magnetics*, MAG-21 (5) p. 1927-1929 (September 1985).
- A118. Stauffer, P.R., et al., "Observations on the use of Ferromagnetic implants for inducing hyperthermia." *IEEE Transactions on Biomedical Engineering* BME-1 (1) 76-90 (January 1984).
- A119. (5) R. A. Holman, Letter "Hyperthermia and Cancer", *Lancet*, pp. 1027-1029 (May 3, 1975).
- A120. (3) Strom, et al., "The Biochemical Mechanism of Selective Heat Sensitivity of Cancer Cells – IV. Inhibition of RNA Synthesis." *Europ. J. Cancer* 9:103-112 (1973).
- A121. (2) Castagna, et al., "Studies on the Inhibition by Ethionine of Aminoazo Dye Carcinogenesis in Rat Liver." *Cancer Research* 32:1960-1965 (1972).
- A122. (1) Muckle, et al., "The Selective Inhibitory Effect of Hyperthermia on the Metabolism and Growth of Malignant Cells" *Brit J. of Cancer* 25:771-778 (1971).
- A123. Murakami, K., "The characteristics of ferrite cores with low curie temperature and their application." *IEEE Transactions On Magnetics* June 1965 96-100 (1965).

## **B. THERMOTHERAPY AND AGENT RELEASE**

### **PATENTS**

- B1. United States Patent No. 6,497,647 issued to Tucker entitled "Radiation and Thermal Energy Source"
- B2. United States Patent No. 6,197,051 issued to Zhong entitled "Polycarbonate-Polyurethane Dispersions For Thrombo-Resistant Coatings"
- B3. United States Patent No. 5,810,888 issued to Fenn, entitled "Thermodynamic Adaptive Phased Array System For Activating Thermosensitive Liposomes In Targeted Drug Delivery"
- B4. United States Patent No. 5,490,840 issued to Uzgiris et al., entitled "Targeted Thermal Release Of Drug-Polymer Conjugates"
- B10. United States Patent No. 6,303,142 issued to Zhang, *et al.*, entitled "Methods and apparatus for improved administration of pharmaceutically active compounds."
- B11. United States Patent No. 6,245,347 issued to Zhang, *et al.*, "Methods and apparatus for improved administration of pharmaceutically active compounds."
- B12. United States Patent No. 5,919,479 issued to Zhang, *et al.*, entitled "Noninvasive dermal anesthetics."
- B13. United States Patent No. 5,853,752 issued to Unger, *et al.*, entitled "Methods for preparing gas and gaseous precursor-filled microspheres."

### **PUBLICATIONS**

- B5. Niemz, M.H., *Laser-Tissue Interactions, Fundamentals and Applications* Springer, pp. 77-80 (2002). A copy of the cited pages, along with a copy of the entire references section of the book is enclosed to enable the Examiner to identify citations in the article.
- B6. (13) Falk, et al., "Hyperthermia In Oncology", *Int. J. Hyperthermia* 17: 1-18 (2001).
- B7. (11) Kong, et al., "Efficacy of Liposomes and Hyperthermia in a Human Tumor Xenograft Model: Importance of Triggered Drug Release", *Cancer Research* 60: 6950-6957 (2000).
- B8. (12) Chung, J.E., et al., "Thermo-Responsive Drug Delivery From Polymeric Micelles Constructed Using Block Copolymers of Poly (N-



isopropylacrylamide) and Poly (butylmethacrylate)," *Journal of Controlled Release* (Netherlands), 62 (2): 115-127 (November 1, 1999).

- B9. Henriques, F. C. "Studies of Thermal Injury: V. The predictability and the significance of thermally induced rate processes leading to irreversible epidermal injury." *Archives of Pathology* 4: 489-502 (1947).

## **C. HEAT SHOCK PATENTS**

- C1. United States Patent No. 6,187,312 issued to Srivastava entitled "Compositions And Methods Using Complexes Of Heat Shock Protein 90 And Antigenic Molecules For The Treatment And Prevention Of Infectious Diseases"
- C2. United States Patent No. 6,030,618 issued to Srivastava entitled "Therapeutic And Prophylactic Methods Using Heat Shock Proteins"
- C3. United States Patent No. 5,935,576 issued to Srivastava entitled "Compositions and Methods For The Treatment And Prevention Of Neoplastic Diseases Using Heat Shock Proteins Complexed With Exogenous Antigens"
- C4. United States Patent No. 5,830,464 issued to Srivastava entitled "Compositions and Methods For The Treatment and Growth Inhibition Of Cancer Using Heat Shock/Stress Protein-Peptide Complexes in Combination With Adoptive Immunotherapy"
- C5. United States Patent No. 5,447,843 issued to McGuire et al., entitled "Heat Shock/Stress Response Proteins And Prognosis In Cancer"

## **PUBLICATIONS**

- C6. Ito, A., Shinkai, M., Honda, H., Wakabayashi, T., Yoshida, J., and Kobayashi, T., "Augmentation of MHC Class I Antigen Presentation via Heat Shock Protein Expression by Hyperthermia." *Cancer Immunol. Immunother.*, 50: 515-522 (2001).
- C7. Schiaffonati, et al., "Hyperthermia induces gene expression of heat shock protein 70 and phosphorylation of mitogen activated protein kinases in the rat cerebellum", *Neuros, Ltrs* 312: 75-78 (2001).
- C8. Wang et al., "Characterization of Heat Shock Protein 110 and Glucose-Regulated Protein 170 as Cancer Vaccines and the Effect of Fever-Range Hyperthermia on Vaccine Activity", *J. of Imm.* 165: 490-497 (2001).
- C9. (15) Anderson, et al., "Heat, heat shock, heat shock proteins and death: a central link in innate and adaptive immune responses" *Immunology Letters*, 74: 35-39 (2000).
- C10. Braiden, et al., "Eradication of Breast Cancer Xenografts by Hyperthermic Suicide Gene Therapy under the Control of the Heat Shock Protein Promoter", *Human Gene Therapy* 11: 2453-2463 (2000).
- C11. Jolly, Caroline and Morimoto, Richard I., "Review: Role of the Heat Shock Response and Molecular Chaperones in Oncogenesis and Cell Death." *Journal of the National Cancer Institute*, 92 (19): pp 1564-1572 (Oct 4, 2000).

- C12. Binder, et al., "CD91: a receptor for heat shock protein gp96", *Nature Immunology*, 1 (2): 151-155 (2000).
- C13. Basu, Sreyashi, Binder, Robert J., Suto, Ryuichiro, Anderson, Kirstin M. and Srivastava, Pramod K., "Necrotic but not Apoptotic Cell Death Releases Heat Shock Proteins, Which Deliver a Partial Maturation Signal to Dendritic Cells and Activate the NF- $\kappa$  $\beta$  pathway." *International Immunology* 12 (11): 1539-1546 (2000).
- C14. Huang, et al., "Heat-induced Gene Expression as a Novel Targeted Cancer Gene Therapy Strategy", *Cancer Research* 60: 3435-3439 (July 2000).
- C15. Ito, et al., "Induction of TNF- $\alpha$  Gene Expression by Heat Inducible Promotor gadd 153", *Jpn. J. Hyperthermic Oncol.* 16 (2) (2000).
- C16. Morrison, A.J., Rush, S.J., and Brown, I.R., "Heat Shock Transcription Factors and the hsp70 Induction Response in Brain and Kidney of the Hyperthermic Rat During Postnatal Development." *Journal of Neurochemistry*, 75: 363-372 (2000).
- C17. Wells, et al., "Heat shock proteins, tumor immunogenicity and antigen presentation: an integrated view", *Immunology today*, 21 (3): 129-132 (2000).
- C18. Vekris, et al., "Control of transgene expression using local hyperthermia in combination with a heat-sensitive promoter", *J. of Gene Med* 2: 89-96 (2000).
- C19. Fehrenbach, et al., "Role of Heat Shock Proteins in the Exercise Response", *Exercise Immunology Review*, 5: 57-77 (1999).
- C20. Dressel, et al., "Enhanced susceptibility to cytotoxic T lymphocytes without increase of MHC class I antigen expression after conditional overexpression of heat shock protein 70 in target cells", *Eur. J. Immunol.* 29: 3925-3935 (1999).
- C21. Housby, et al., "Non-Steroidal Anti-Inflammatory Drugs Inhibit The Expression Of Cytokines And Induce HSP70 In Human Monocytes", *CYTOKINE*, 11 (5) 347-358 (May 1999).
- C22. (16) Srivastava, et al., "Heat Shock Proteins Come of Age: Primitive Functions Acquire New Role In an Adaptive World" *Immunity*, 8 (6), pp 657-665 (1998).
- C23. Edwards, "Apoptosis, the heat shock response, hyperthermia, birth defects, disease and cancer. Where are the common links?", *Cell Stress of Chaperones* 3 (4): 213-220 (1998).
- C24. Ménoret, et al., "Heat-Shock Protein-Based Anticancer Immunotherapy: An Idea Whose Time Has Come", *Sem. in Oncology* 25 (6) 654-660 (Dec 1998).
- C25. Yanase, et al., "Antitumor Immunity Induction by Intracellular Hyperthermia Using Magnetite Cationic Liposomes", *Jpn J. Cancer Res.* 89: 775-782, (July 1998).

- C26. Melcher, A. Todryk, S., Hardwick, N., Ford, M., Jacobson, M., Vile, R.G., "Tumor Immunogenicity is Determined by the Mechanism of Cell Death via Induction of Heat Shock Protein Expression." *Nature Medicine*, 4 (5): 581-587 (1998).
- C27. Satyal, et al., "Negative regulation of the heat shock transcriptional response by HSBPI" *Genes & Development* 12: 1962-1974 (1998).
- C28. Albert, M.L. et al., "Dendritic Cells Acquire Antigen from Apoptotic Cells and Induce Class I Restricted CTLs." *Nature*, 392: 86-89 (5 Mar 1998).
- C29. Xu, et al., "Intracellular distribution of hsp70 during long duration moderate hyperthermia", *Int. J. Hyperthermia* 14 (2): 211-225 (1998).
- C30. Wells, et al., "Hsp72 – mediated augmentation of MHC class I surface expression and endogenous antigen presentation", *International Immunology*, 10 (5): 609-617(1998).
- C31. Peper, et al., "A mathematical model of the hsp70 regulation in the cell", *Int J. of Hyperthermia*, 14 (1): 97-124 (1998).
- C32. Benndorf, et al., "Cellular Stress Response: Stress Proteins – Physiology and Implications for Cancer", *Recent Results in Cancer Research*, 143: 129-144 (1997).
- C33. Speiser et al., "Self Antigens Expressed by Solid Tumors Do Not Efficiently Stimulate Naïve or Activated T Cells: Implications for Immunotherapy", *J. Exp. Med.* 186 (5): 645-653 (1997).
- C34. Tanabe, M., Nakai, A., Kawazoe, Y., and Nagata, K., "Different Thresholds in the Responses of Two Heat Shock Transcription Factors, HSF1 and HSF3\*." *Journal of Biological Chemistry*, 272: 15389-15395 (1997).
- C35. Peng, et al., "Purification of immunogenic heat shock protein 70-peptide complexes by ADP-affinity chromatography" *J. of Imm. Meth.* 204: 13-21 (1997).
- C36. Freeman, et al., "Immune system in suicide-gene therapy" (Commentary) *The Lancet*, 349: 2-3 (Jan 4, 1997).
- C37. Blachere, et al., "Heat Shock Protein – Peptide Complexes, Reconstituted In Vitro, Elicit Peptide-specific Cytotoxic T Lymphocyte Response and Tumor Immunity", *J. Exp. Med*, 186 (8): 1315-1322 (1997).
- C38. Tamura, Y., Peng, P., Liu, K., Daou, M. and Srivastava, P.K., "Immunotherapy of Tumors with Autologous Tumor-Derived Heat Shock Protein Preparations." *Science*, 278: 117-120 (1997).
- C39. Cahill, et al., "Transcriptional Repression of the Prointerleukin 1B Gene by Heat Shock Factor 1\*" , *Biological Chem.*, 271 (40): 24874-2487 (1996).

- C40. Wei, Y.-Q., Zhao, X., Kariya, Y., Fukata, H., Teshigawara, K., and Uchida, A., "Induction of Autologous Tumor Killing by Heat Treatment of Fresh Human Tumor Cells: Involvement of  $\gamma\delta$  T-cells and Heat Shock Protein 70." *Cancer Research*, 56: 1104-1110 (1996).
- C41. Liu, et al., "Letter to Editor", *Int J. Hyperthermia*, 12 (2): 301-302 (1996).
- C42. (37) Morimoto, R.I., et al., "The transcriptional regulation of heat shock genes: A plethora of heat shock factors and regulatory conditions." in *Stress Inducible Responses*, ed. by Feige et al., Springer Verlag, Boston pp. 120, 139-163 (1996).
- C43. Arnold, et al., "Cross-priming of minor histocompatibility antigen-specific cytotoxic T cells upon immunization with the heat shock protein gp96", *J. of Ex. Med.* 182: 885-889 (1995). [ABSTRACT ONLY]
- C44. Suto, R. & Srivastava, P.K., "A Mechanism for the Specific Immunogenicity of Heat Shock Protein-Chaperoned Peptides." *Science*, 269: 1585-1588 (1995).
- C45. Li, et al., "Heat shock proteins, thermotolerance, and their relevance to clinical hyperthermia", *Int J. Hyperthermia* 11 (4) 459-488 (1995).
- C46. (31) Columbano, A., "Cell Death: Current Difficulties in Discriminating Apoptosis From Necrosis in the Context of Pathological Processes in Vivo", *Journal of Cellular Biochemistry*, 58; 181-190 (1995).
- C47. (35) Matzinger, "Tolerance, Danger and the Extended Family." *Annu. Rev. Immunol.*, 12: 991-1044 (1994).
- C48. Craig, et al., "Heat Shock Proteins and Molecular Chaperones: Mediators of Protein Conformation and Turnover in the Cell" (Meeting Review), *Cell*, 78: 365-372 (Aug 12, 1994).
- C49. Huang, et al., "Role of Bone Marrow – Derived Cells in Presenting MHC Class I – Restricted Tumor Antigens", *Science* 264: 961-965 (3 May 1994).
- C50. Udono, et al., "Cellular requirements for tumor-specific immunity elicited by heat shock proteins: Tumor rejection antigen gp96 primes CD8+ T cells in vivo", *Proc. Natl. Acad. Sci. USA*, 91: 3077-3081 (1994).
- C51. Fajardo, et al., "Endothelial cells and hyperthermia", *Int J. Hyperthermia*, 10 (3): 347-353 (1994).
- C52. (32) Georgopoulos, C., Welch, W.J. "Role of the Major Heat Shock Proteins as Molecular Chaperones." *Annu. Rev. of Cell Biol.*, 9: 601-634 (1993).
- C53. (33) Hendrick, J.P. and Hartl, F.U., "Molecular Chaperone Functions of Heat-Shock Proteins." *Annu. Rev. of Biochem.*, 62: 349-84 (1993).
- C54. (38) Parsell, D.A. & Lindquist, S., "The Function of Heat-Shock Proteins in Stress Tolerance: Degradation and Reactivation of Damaged Proteins." *Annu. Rev. of Genet.*, 27: 437-496 (1993).

- C55. Li, Z., and Srivastava, P.K., "Tumor rejection antigen gp96/grp94 is an ATPase: implications for protein folding and antigen presentation." *EMBO Journal* 12 (8): 3143-3151 (1993).
- C56. Udono, et al., "Heat shock protein 70-associated peptides elicit specific cancer immunity", *J. of Exp. Med.* 178: 1391-1396 (1993). [ABSTRACT ONLY]
- C57. Marquez, et al., "HSP 70 Synthesis In Clinical Hyperthermia Patients: Preliminary Results of A New Technique", *J. Radiation Oncology Biol Phys.*, 28: 425-430 (1993).
- C58. Blachere, et al., "Heat Shock Protein Vaccines Against Cancer", *J. of Immunology* 14: 352-356 (1993).C62.
- C59. Paulus, et al., "Heat Shock Protein Response in a Prostate Tumor Model to Interstitial Thermotherapy: Implications for Clinical Treatment", *The Prostate* 23: 263-270 (1993).
- C60. (36) Morimoto R.I., "Perspective: Cells in Stress: Transcriptional Activation of Heat Shock Genes." *Science* 259: 1409-10 (1993).
- C61. Ciocca, et al., "Response of human breast cancer cells to heat shock and chemotherapeutic drugs." *Cancer Res.* 52: 3648-3654 (July 1, 1992).
- C62. Davidoff, et al., "Immune response to p53 is dependent upon p53/HSP70 complexes in breast cancers", *Proc. Natl. Acad. Sci USA* 89: 3439-3442 (April 1992).
- C63. (39) Schlesinger, M.J., "Minireview: Heat Shock Proteins." *Journal of Biological Chemistry* 265: 12111-12114 (1990).
- C64. Nowak, Jr., "Heat Shock RNA Levels in Brain and Other Tissues After Hyperthermia and Transient Ischemia", *J. of Neurochem.* 54: 451-458 (1990).
- C65. (30) Lindquist, S., "The Heat Shock Response." *Annu. Rev. Biochem.*, 55: 1151-91 (1986).
- C66. Srivastava, et al., "Tumor Rejection Antigens of Chemically Induced Sarcomas of Inbred Mice", *Proc. Natl. Acad Sci USA* 83 (10) 3407-3411 (1986).
- C67. Tomasovic, et al., "Heat stress proteins and experimental cancer metastasis", *Int. J. Hyperthermia* 2(3) 253-266 (1986).
- C68. Li, "Thermal Biology and Physiology in Clinical Hyperthermia: Current Status and Future Needs", *Cancer Rev.* (suppl.) 44: 4886s – 4893s (1984).
- C69. (14) Ritossa, "A New Puffing Pattern Induced By Temperature Shock and DNP in *Drosophila*" *Experientia*, 18: 571-573 (1962).

## **D. IN STENT RESTENOSIS**

### **PATENTS**

- D1. United States Patent No. 6,319,251 issued to Tu et al., entitled "Medical Device And Methods For Treating Intravascular Restenosis"
- D2. United States Patent No. 6,206,916 issued to Furst, entitled "Coated Intraluminal Graft"
- D3. United States Patent No. 6,203,508 issued to Ren et al., entitled "Thermal And Stress Mapping Of Body Lumens"
- D4. United States Patent No. 6,200,307 issued to Kasinkas et al., entitled "Treatment Of In-Stent Restenosis Using Cytotoxic Radiation"
- D5. United States Patent No. 6,200,259 issued to March, entitled "Method Of Treating Cardiovascular Disease By Angiogenesis"
- D6. United States Patent No. 6,197,296 issued to Davies et al., entitled "Tissue Equivalents"
- D7. United States Patent No. 6,196,996 issued to Teirstein, entitled "Irradiation Catheter And Method Of Use"
- D8. United States Patent No. 6,192,095 issued to Sekine et al., entitled "Xenon-133 Radioactive Stent For Preventing Restenosis Of Blood Vessels And A Process For Producing The Same"
- D9. United States Patent No. 6,190,404 issued to Palmaz et al., entitled "Intravascular Stent And Method For Manufacturing An Intravascular Stent"
- D10. United States Patent No. 6,190,379 issued to Heuser et al., entitled "Hot Tip Catheter"
- D11. United States Patent No. 6,190,355 issued to Hastings, entitled "Heated Perfusion Balloon For Reduction Of Restenosis"
- D12. United States Patent No. 6,190,302 issued to Mosseri et al., entitled "Stereotactic Radiotreatment and Prevention of Restenosis"
- D13. United States Patent No. 6,187,037 issued to Satz entitled "Metal Stent Containing Radioactivatable Isotope And Method Of Making Same"
- D14. United States Patent No. 6,183,409 issued To Armini entitled "Soft X-Ray Emitting Radioactive Stent"

- D15. United States Patent No. 6,179,867 issued to Cox, entitled "Flexible Stent And Method Of Use"
- D16. United States Patent No. 6,179,824 issued to Eggers et al., Entitled "System And Methods For Electrosurgical Restenosis Of Body Lumens"
- D17. United States Patent No. 6,179,789 issued to Tu et al., Entitled "Enhanced Radioactive Stent For Reduction Of Restenosis"
- D18. United States Patent No. 6,176,872 issued to Miksza, entitled "Radial Strength Stent"
- D19. United States Patent No. 6,165,209 issued to Patterson et al., entitled "Vascular Stent For Reduction Of Restenosis"
- D20. United States Patent No. 5,078,736 issued to Behl, entitled "Method And Apparatus For Maintaining Patency In The Body Passages"
- D35. United States Patent No. 6,319,242 issued to Patterson, *et al.* entitled "Apparatus and method for controlled removal of stenotic material from stent."
- D36. United States Patent No. 6,193,669 issued to Degany *et al.*, entitled "System and method for detecting, localizing, and characterizing occlusions, stent positioning, dissections and aneurysms in a vessel."
- D37. United States Patent No. 5,830,179 issued to Mikus, *et al.*, entitled "Urological stent therapy system and method."
- D38. United States Patent No. 5,824,005 issued to Motamedi, *et al.*, entitled "Maneuverable electrophysiology catheter for percutaneous or intraoperative ablation of cardiac arrhythmias."
- D39. United States Patent No. 5,527,337 issued to Stack, *et al.*, entitled "Bioabsorbable stent and method of making the same."
- D40. United States Patent No. 5,098,429 issued to Sterzer, entitled "Angioplastic technique employing an inductively-heated ferrite material."
- D41. United States Patent No. 5,087,256 issued to Taylor, *et al.*, entitled "Thermal atherectomy device."
- D42. United States Patent No. 5,057,095, issued to Fabian entitled "Surgical implement detector utilizing a resonant marker."
- D43. United States Patent No. 4,979,948 issued to Geddes, *et al.*, entitled "Method and apparatus for thermally destroying a layer of an organ."



- D44. United States Patent No. 4,979,518 issued to Itoh, *et al.*, entitled "Body depth heating hyperthermal apparatus."
- D45. United States Patent No. 4,807,620 issued to Strul, *et al.*, entitled "Apparatus for thermal angioplasty."
- D46. United States Patent No. 4,695,713 issued to Krumme, entitled "Autoregulating, electrically shielded heater."
- D21. European Patent Application EP 1 036 574 A1 issued to Diamantopoulos, L. *et al.*, entitled "Method and organisation of external heating of metallic elements and implants with the use of a magnetic field."
- D22. European Patent Application EP 0 392 837 A2 issued to Geddes *et al.*, entitled "Apparatus For Thermally Destroying Tissue"
- D23. International Patent Publication WO 00/57818 issued Hnojewyj *et al.*, to entitled "Stent With An Integrated Film Coating For Deployment Throughout The Body"

#### **PUBLICATIONS**

- D24. (48) "Drug-Coated Stents Poised for Growth", *Cardiovascular Device Update* 7: 8-10 (September 2001).
- D25. (47) Simonsen, "Percutaneous intervention arena still expanding for heart disease." *Cardiovascular Device Update* 7 (5): 1-7 (May 2001).
- D26. (18) Holmes, Jr., "In-Stent Restenosis", *Reviews in Cardiovascular Medicine*, 2: 115-119 (2001).
- D27. (53) Stefanadis, C., *et al.*, "Hyperthermia of Arterial Stented Segments by Magnetic Force: A New Method to Eliminate Intimal Hyperplasia", *Journal of the American College of Cardiology* 37 (2) Supp. A: 2A-3A (2001).
- D28. (49) Thury, A., *et al.*, "Initial Experience With Intravascular Sonotherapy For Prevention of In-Stent Restenosis Safety and Feasibility", *J. of Am. College of Cardiology* 37 (2) Supplement A (2000). [Meeting Abstract]
- D29. Neschis, *et al.*, "Thermal Preconditioning Before Rat Arterial Balloon Injury", *Arterioscler. Thromb. Vasc. Biol.* 18: 120-126 (1998).
- D30. Lafont, *et al.*, "Remodelling: therapeutic opportunities", *Semin. Intervent. Cardiol.* 2: 177-182 (1997).
- D31. Mukherjee, *et al.*, "Association of Antibodies to Heat-Shock Protein-65 with Percutaneous Transluminal Coronary Angioplasty and Subsequent Restenosis", *Lancet* 75 (2): 258-260 (1996).

- D32. (10) Meyer, et al., "Stent Wire Cutting During Coronary Directional Artherectomy", *Clin. Cardiol.* 16: 450-452 (1993).
- D33. (17) Kaplan, et al., "Healing After Arterial Dilatation With Radiofrequency Thermal and Nonthermal Balloon Angioplasty Systems", *Journal of Investigative Surgery* 6: 33-52 (1993).
- D34. (19) Bowerman, et al., "Disruption of a Coronary Stent During Artherectomy for Restenosis", *Catherization and Cardiovascular Diagnosis* 24: 248-251 (1991).

## **E. ORTHOPEDICS – OSTEOGENESIS**

### **PUBLICATIONS**

- E1. (24) Shui, C., and Scutt, A., "Mild Heat Shock Induces Proliferation, Alkaline Phosphatase Activity, and Mineralization in Human Bone Marrow Stromal Cells and Mg-63 Cells *In Vitro*." *Journal of Bone and Mineral Research* 16: 731-741 (2001).
- E2. Meyer, R.A., et al., "Delayed union of femoral fractures in older rats: decreased gene expression." *BMC Musculoskeletal Disorders* 2: 2, available at <http://www.biomedcentral.com/1471-2474/2/2> (2001).
- E3. (25) Huang, C.-C., Chang, W.H., and Liu, H.-C.. "Study on the Mechanism of Enhancing Callus Formation of Fracture by Ultrasonic Stimulation and Microwave Hyperthermia." *Biomed. Eng. Appl. Basis Comm.* 10: 14-17 (1998).
- E4. Farley, D., "New Ways to Heal Broken Bones", *FDA Consumer Mag.* at [http://www.fda.gov/foia/features/396\\_bone.html](http://www.fda.gov/foia/features/396_bone.html) (1996).
- E5. Ohashi, "The effect of drilling parameters on bone", *J. of Materials Sci.: Materials in Medi*, 5:225-231 (1994).
- E6. (23) Leon, et al., "Effects of Hyperthermia on Bone. II. Heating of Bone *in vivo* and Stimulation of Bone Growth." *Int. J. Hyperthermia* 9: 77-87 (1993).
- E7. (22) Wootton, P., Jennings, P., King-Underwood, C., and Wood, S. J., "The Effect of Intermittent Local Heating on Fracture Healing in the Distal Tibia of the Rabbit" *International Orthopedics*, 14:189-193 (1990).
- E8. Giffin, D.J., "The Effect of Power Instrumentation on Bone Healing" *J. of Foot Surg.* 20 (2); 81-83 (1981).
- E9. Jacobs et al., "The Effect of Heat on Bone Healing", *Arch. Surg.*, 104; 687-691 (1972).

## F. INFECTIOUS AGENTS

### PUBLICATIONS

- F1. (28) Zugel, U., Sponaas, A.M., Neckermann, J., Schoel, B., and Kaufmann, S. H.E., "gp96-Peptide Vaccination of Mice Against Intracellular Bacteria." *Infection and Immunity*, 69: 4164-4167 (2001).
- F2. Sponaas, et al., "Immunization with gp96 from *Listeria monocytogenes* – Infected Mice is Due to N-Formylated Listerial Peptides", *J. of Immun.* 167:6480-6486 (2001).
- F3. Fan, et al., "Recognition of a Sequestered Self Peptide by Influenza Virus – Specific CD8+ Cytolytic T Lymphocytes", *J. of Imm.* 164: 1669-1680 (2000).
- F4. (29) Zugel, U., and Kaufmann, S.H.E., "Role of Heat Shock Proteins in Protection from and Pathogenesis of Infectious Diseases." *Clinical Microbiology Reviews*, 12: 19-39 (1999).
- F5. Rosenkrands, et al., "Differential T-Cell Recognition of Native and Recombinant Mycobacterium tuberculosis GroES", *Infection and Imm.* 67 (11): 5552-5558 (1999).
- F6. (27) Heikema, A., Agsteribbe, E., Wilschut, J., Huckriede, A., "Generation of heat shock protein-based vaccines by intracellular loading of gp96 with antigenic peptides." *Immunology Letters*, 57: 69-74. (1997)
- F7. (26) Neiland, Thomas J. F., M. C. Agnes A. Tan, Monique Monnee-van Muijen, Frits Koning, Ada M. Kruisbeek, and Grada M. van Bleek, "Isolation of an immunodominant viral peptide that is endogenously bound to the stress protein gp96/GRP94." *Proc. Nat'l Acad. Sci. USA*, 93: 6135-6139 (1996).

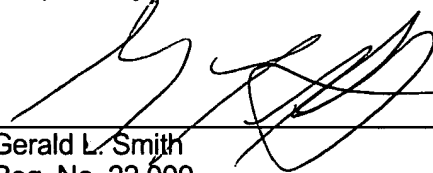
## **G. OTHER**

- G1. United States Patent No. 5,494,035 issued to Leuthold, *et al.*, entitled "Method for detecting presence of ferromagnetic objects in a medical patient."
- G2. United States Patent No. 5,690,847 issued to LaValley, *et al.*, entitled "Pivotal tweezer having gears and self-regulating curie-point heaters."
- G3. United States Patent No. 5,611,798 issued to Eggers, entitled "Resistively heated cutting and coagulating surgical instrument."
- G4. United States Patent No. 5,456,718 issued to Szymaitis, entitled "Apparatus for detecting surgical objects within the human body."
- G5. United States Patent No. 5,378,879 issued to Monovoukas, entitled "Induction heating of loaded materials."
- G6. United States Patent No. 5,329,085 issued to Cowell, *et al.*, entitled "Temperature self regulating heaters and soldering irons."
- G7. United States Patent No. 5,300,750 issued to Carter, Jr., *et al.*, entitled "Thermal induction heater."
- G8. United States Patent No. 5,134,370 issued to Jefferts, *et al.*, entitled "Apparatus for the detection of magnetic tags."
- G9. United States Patent No. 5,057,095 issued to Fabian, entitled "Surgical implement detector utilizing a resonant marker."
- G10. United States Patent No. 4,364,390 issued to Shaw, entitled "Surgical instrument having self-regulating dielectric heating of its cutting edge and method of using the same."
- G11. United States Patent No. 4,364,377 issued to Smith, entitled "Magnetic field homeostasis."
- G12. United States Patent No. 4,209,017 issued to Shaw, entitled "Surgical instrument having self-regulating radiant heating of its cutting edge and method of using the same."
- G13. United States Patent No. 4,207,896 issued to Shaw, entitled "Surgical instrument having self-regulating dielectric heating of its cutting edge."
- G14. United States Patent No. 4,091,813 issued to Shaw, *et al.*, entitled "Surgical instrument having self-regulated electrical proximity heating of its cutting edge and method of using the same."

- G15. United States Patent No. 4,074,249 issued to Minasy, entitled "Magnetic detection means."
- G16. United States Patent No. 3,587,583 issued to Greenberg, entitled "Surgical sponge with magnetized means."
- G17. United States Patent No. 3,422,816 issued to Robinson, *et al.*, entitled "Surgical Dressing."

It respectfully is submitted that none of the foregoing art, alone or in combination, shows or proposes the present invention. Accordingly, favorable action on the application respectfully is requested.

Respectfully submitted,

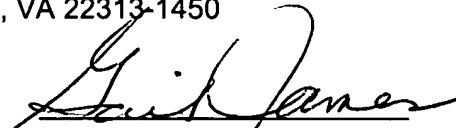


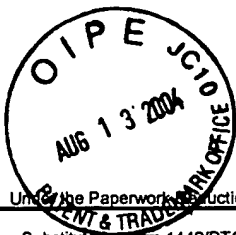
Gerald L. Smith  
Reg. No. 22,009  
MUELLER AND SMITH, L.P.A.  
MUELLER-SMITH BUILDING  
7700 Rivers Edge Drive  
Columbus, Ohio 43235-1355  
Tel.: 614-436-0600  
Fax: 614-436-0057  
email: jsmith@muellersmith.com

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited on August 10, 2004 with the United States Postal Service as first class mail in an envelope addressed to:

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

  
Gail James



PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/733,970
Filing Date	December 11, 2003
First Named Inventor	Philip E. Eggers
Art Unit	3739
Examiner Name	
Attorney Docket Number	CAL 2-018

Sheet 1 of 24

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	A1	US- 6,565,887	05-20-2003	Gray, et al.	
	A2	US- US2002/0008336	01-24-2002	Otobe, et al.	
	A3	US- 6,451,004	09-17-2002	Naghavi, et al.	
	A4	US- 6,195,411	02-27-2001	Dinsmore	
	A5	US- 6,186,941	02-13-2001	Blackwell	
	A6	US- 6,174,276	01-16-2001	Blackwell	
	A7	US- 6,167,313	12-26-2000	Gray, et al.	
	A8	US- 6,143,019	11-07-2000	Motamedi et al.	
	A9	US- 6,139,536	10-31-2000	Mikus, et al.	
	A10	US- 6,083,148	07-04-2000	Williams	
	A11	US- 6,081,749	06-27-2000	Ingle, et al.	
	A12	US- 6,074,337	06-13-2000	Tucker, et al.	
	A13	US- 6,022,308	02-08-2000	Williams	
	A14	US- 6,007,474	12-28-1999	Rydell	
	A15	US- 5,976,067	11-02-1999	Tucker, et al.	
	A16	US- 5,928,217	07-27-1999	Mikus, et al.	
	A17	US- 5,906,636	05-25-1999	Casscells, III et al	
	A18	US- 5,715,837	02-10-1998	Chen	
	A19	US- 5,571,153	11-05-1996	Wallsten	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/733,970
Filing Date	December 11, 2003
First Named Inventor	Philip E. Eggers
Art Unit	3739
Examiner Name	
Attorney Docket Number	CAL 2-018

Sheet 2 of 24**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	A20	US- 5,468,210	11-21-1995	Matsui, et al.	
	A21	US- 5,433,708	07-18-1995	Nichols, et al.	
	A22	US- 5,429,583	07-04-1995	Paulus, et al.	
	A23	US- 5,425,731	06-20-1995	Daniel, et al.	
	A24	US- 5,251,645	10-12-1993	Fenn	
	A25	US- 5,203,782	04-20-1993	Gudov, et al.	
	A26	US- 5,197,940	03-30-1993	Sievert, et al.	
	A27	US- 5,133,710	07-28-1992	Carter, Jr., et al.	
	A28	US- 5,108,359	04-28-1992	Granov, et al.	
	A29	US- 5,099,756	03-31-1992	Franconi, et al.	
	A30	US- 5,067,952	11-26-1991	Gudov, et al.	
	A31	US- 4,983,159	01-08-1991	Rand	
	A32	US- 4,869,247	09-26-1989	Howard, III, et al.	
	A33	US- 4,846,196	07-11-1989	Wiksell, et al.	
	A34	US- 4,798,215	01-17-1989	Turner	
	A35	US- 4,690,130	09-01-1987	Mirell	
	A36	US- 4,574,782	03-11-1986	Borrelli, et al.	
	A37	US- 4,545,368	10-08-1985	Rand, et al.	
	A38	US- 4,520,249	05-28-1985	Czerlinski	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/733,970
Filing Date	December 11, 2003
First Named Inventor	Philip E. Eggers
Art Unit	3739
Examiner Name	
Attorney Docket Number	CAL 2-018

Sheet **3** of **24****U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	A39	US- 4,369,345	01-18-1983	Czerlinski	
	A40	US- 4,323,056	04-06-1982	Borrelli, et al.	
	A41	US- 4,138,998	02-13-1979	Nowogrodzki	
	A42	US- 3,948,785	04-06-1976	Berchold	
	A43	US- 3,837,910	09-24-1974	Van der Laan, et al.	
	A44	US- 3,653,385	04-04-1972	Burton	
	A45	US- 3,252,913	05-24-1966	Van Gils, et al.	
	A46	US- 2,958,664	11-01-1960	Vassiliev, et al.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	A47	EP 0 970 724 A2	12-01-2000	Williams		
	A48	0 459 520 A2	04-12-1991	Saito, et al.		
	A49	0459 520 A3	04-12-1991	Saito		
	A50	0152963	08-28-1985	Kraus		✓
	A51	201020127 A	01-26-1983	Bresler, et al.		
	A52	DE 34 06 565 C 2	04-27-1995	Kraus		✓

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(Use as many sheets as necessary)*

**Complete if Known**

Application Number	10/733,970
Filing Date	December 11, 2003
First Named Inventor	Philip E. Eggers
Art Unit	3739
Examiner Name	
Attorney Docket Number	CAL 2-018

Sheet	4	of	24
-------	---	----	----

## U. S. PATENT DOCUMENTS

[illegible]

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>2</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	MM-DD-YYYY			
	A53	DE 44 33 502 A 1	03-21-1996	Siemens, et al.		✓
	A54	RU 2 082 458 C1	06-27-1997	Evgen'evich, et		✓
	A55	WO 00/38602	07-02-2000	Naghavi		

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>			
		Application Number	10/733,970		
		Filing Date	December 11, 2003		
		First Named Inventor	Philip E. Eggers		
		Art Unit	3739		
		Examiner Name			
Sheet	5	of	24	Attorney Docket Number	CAL 2-018

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	A101	MATSUI, T., et al., "A novel ferromagnetic thermo-stent for plaque stabilization that self-regulates the temperature." IEEE Trans. Biomed Eng., 49 (6): 621-623 (2002).	
	A102	Magnetic Sensors and Magnetometers, edited by P. Ripka, Artech House, Inc., Norwood, MA pp 75-127, and 380-391 (2001).	
	A103	(13) Falk, et al., "Hyperthermia in Oncology" Int. J. Hyperthermia, 17 (1): 1-18 (2001).	
	A104	Janetski, et al., "Immunization of cancer patients with autologous cancer-derived heat shock protein gp96 preparations: A pilot study." Int. J. Cancer ii: 232-238 (2000).	
	A105	Yedavelli, S.P.K., et al., "Preventive and therapeutic effect of tumor derived heat shock protein, gp96, in an experimental prostate cancer model." Int. J. Molecular Med. 4:	
	A106	Cetas, et al., "A Ferrite Core Metallic Sheath Thermoseed for Interstitial Thermal Therapies", IEEE Trans. On Biomed. Eng., 45 (1) (1998).	
	A107	Fenn, et al., "An Adaptive Microwave Phased Array for Targeted Heating Of Deep Tumors In Intact Breast: Animal Studies Results" Int. J. Hyperthermia, Vol. 15, No. 1, pp 45-61	
	A108	(37) Ajishi, Yoshifumi, et al., "Preparation and Evaluation of Temperature Sensitive Magnetic Thin film With Low Curie Temperature", T. IEEE Japan, Vol 118-A, (2): 158-163 (1	
	A109	Paulus, et al., "Thermal Ablation of Canine Prostate Using Interstitial Temperature Self-Regulating Seeds: New Treatment for Prostate Cancer", J. of Endourology 11 (4)s: 295-3	
	A110	(7) Arkin, H. et al., "Recent Development in Modeling Heat Transfer in Blood Perfused Tissue," IEEE Transactions on Bio-Medical Engineering 41 (2) 97-107 (1994).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/733,970
		Filing Date	December 11, 2003
		First Named Inventor	Philip E. Eggers
		Art Unit	3739
		Examiner Name	
Sheet 6	of 24	Attorney Docket Number	CAL 2-018

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	A111	Feldmann, H.J., et al., "Deep regional hyperthermia comparison between the annular phased array and the Sigma-60 applicator in the same patients." Int. J. Radiation. Oncol. Biol. Phys. 26: 111-116 (1993).	
	A112	Wu, B., et al., "Antitumor effect of interleukin 7 in combination with local hyperthermia in mice bearing B16a melanoma cells." Stem Cells 11: 412-421 (1993) [ABSTRACT ONLY]	
	A113	8) Haider, et al., "Power Absorption in Ferromagnetic Implants from Radio Frequency Magnetic Fields and the Problem of Optimization." IEEE Transactions On Microwave Theory and	
	A114	(40) Hynynen, et al., "Hyperthermia in Cancer Treatment" Investigative Radiology 25: 824-834 (1990).	
	A115	(7) Brezovich, et al., "Practical Aspects of Ferromagnetic Thermoseed Hyperthermia," Radiologic Clinics of North America 27:589-682 (1989).	
	A116	Matsuki, et al., "An optimum design of a sof heating system for local hyperthermia." IEEE Transactions on Magnetics, MAF-23 (5) p. 2440-2442 (September 1987).	
	A117	Stuchly, et al., "Measurements of Electromagnetic Fields In Biomedical Applications", CRC Critical Reviews in Biomedical Engineering, 14(3): 241-288 (1987).	
	A118	Matsuki, and Murakami "High quality soft heating method utilizing temperature dependence of permeability and core loss of low Curie temperature ferrite." IEEE Transactions on	
	A119	Stauffer, P.R., et al., "Observations on the use of Ferromagnetic implants for inducing hyperthermia." IEEE Transactions on Biomedical Engineering BME-1 (1) 76-90 (January 1984).	
	A120	(5) R. A. Holman, Letter "Hyperthermia and Cancer", Lancet, pp. 1027-1029 (May 3, 1975).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number Filing Date First Named Inventor Art Unit Examiner Name	10/733,970
	December 11, 2003
	Philip E. Eggers
	3739
Sheet 7 of 24	Attorney Docket Number CAL 2-018

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	A121	(3) Strom, et al., "The Biochemical Mechanism of Selective Heat Sensitivity of Cancer Cells – IV. Inhibition of RNA Synthesis." Europ. J. Cancer 9:103-112 (1973).	
	A122	(2) Castagna, et al., "Studies on the Inhibition by Ethionine of Aminoazo Dye Carcinogenesis in Rat Liver." Cancer Research 32:1960-1965 (1972).	
	A123	(1) Muckle, et al., "The Selective Inhibitory Effect of Hyperthermia on the Metabolism and Growth of Malignant Cells" Brit J. of Cancer 25:771-778 (1971).	
	A124	Murakami, K., "The characteristics of ferrite cores with low curie temperature and their application." IEEE Transactions On Magnetics June 1965 96-100 (1965).	
	A125		
	A126		
	A127		
	A128		
	A129		
	A130		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/733,970
Filing Date	December 11, 2003
First Named Inventor	Philip E. Eggers
Art Unit	3739
Examiner Name	
Attorney Docket Number	CAL 2-018

Sheet 8

of 27

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	B1	US- 6,497,647	12-24-2002	Tucker	
	B2	US- 6,197,051	03-06-2001	Zhong	
	B3	US- 5,810,888	09-22-1998	Fenn	
	B4	US- 5,490,840	02-13-1996	Uzgirir, et al.	
	B10	US- 6,303,142	10-16-2001	Zhang, et al.	
	B11	US- 6,245,347	06-12-2001	Zhang, et al.	
	B12	US- 5,919,479	07-06-1999	Zhang, et al.	
	B13	US- 5,853,752	12-29-19980	Unger, et al.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/733,970
		Filing Date	December 11, 2003
		First Named Inventor	Philip E. Eggers
		Art Unit	3739
		Examiner Name	
Sheet 9	of 24	Attorney Docket Number	CAL 2-018

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	B5	Niemz, M.H., Laser-Tissue Interactions, Fundamentals and Applications Springer, pp. 77-80 (2002). A copy of the cited pages, along with a copy of the entire references section of the book is enclosed to enable the Examiner to identify citations in the article.	
	B6	(13) Falk, et al., "Hyperthermia In Oncology", Int. J. Hyperthermia 17: 1-18 (2001).	
	B7	(11) Kong, et al., "Efficacy of Liposomes and Hyperthermia in a Human Tumor Xenograft Model: Importance of Triggered Drug Release", Cancer Research 60: 6950-6957 (2000).	
	B8	(12) Chung, J.E., et al., "Thermo-Responsive Drug Delivery From Polymeric Micelles Constructed Using Block Copolymers of Poly (N-isopropylacrylamide) and Poly (butylmethacryla	
	B9	Henriques, F. C. "Studies of Thermal Injury: V. The predictability and the significance of thermally induced rate processes leading to irreversible epidermal injury." Archives of Pathology 4: 489-502 (1947).	
	A126		
	A127		
	A128		
	A129		
	A130		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(Use as many sheets as necessary)*

**Complete if Known**

Application Number	10/733,970
Filing Date	December 11, 2003
First Named Inventor	Philip E. Eggers
Art Unit	3739
Examiner Name	
Attorney Docket Number	CAL 2-018

Sheet	10
-------	----

of	24
----	----

Attorney Docket Number	CAL 2-018
------------------------	-----------

## U. S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

[illegible]

Examiner Signature	Date Considered
-----------------------	--------------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Sheet 11 of 24	Application Number	10/733,970
	Filing Date	December 11, 2003
	First Named Inventor	Philip E. Eggers
	Art Unit	3739
	Examiner Name	
Attorney Docket Number		CAL 2-018

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C6	Ito, A., Shinkai, M., Honda, H., Wakabayashi, T., Yoshida, J., and Kobayashi, T., "Augmentation of MHC Class I Antigen Presentation via Heat Shock Protein Expression by Hypert	
	C7	Schiaffonati, et al., "Hyperthermia induces gene expression of heat shock protein 70 and phosphorylation of mitogen activated protein kinases in the rat cerebellum", Neuros, L	
	C8	Wang et al., "Characterization of Heat Shock Protein 110 and Glucose-Regulated Protein 170 as Cancer Vaccines and the Effect of Fever-Range Hyperthermia on Vaccine Activity",	
	C9	(15) Anderson, et al., "Heat, heat shock, heat shock proteins and death: a central link in innate and adaptive immune responses" Immunology Letters, 74: 35-39 (2000).	
	C10	Braiden, et al., "Eradication of Breast Cancer Xenografts by Hyperthermic Suicide Gene Therapy under the Control of the Heat Shock Protein Promoter", Human Gene Therapy 11: 24	
	C11	Jolly, Caroline and Morimoto, Richard I., "Review: Role of the Heat Shock Response and Molecular Chaperones in Oncogenesis and Cell Death." Journal of the National Cancer Inst	
	C12	Binder, et al., "CD91: a receptor for heat shock protein gp96", Nature Immunology, 1 (2): 151-155 (2000). Basu, Sreyashi, Binder, Robert J., Suto, Ryuichiro, Anderson, Kirstin	
	C13	Basu, Sreyashi, Binder, Robert J., Suto, Ryuichiro, Anderson, Kirstin M. and Srivastava, Pramod K., "Necrotic but not Apoptotic Cell Death Releases Heat Shock Proteins, Which	
	C14	Huang, et al., "Heat-induced Gene Expression as a Novel Targeted Cancer Gene Therapy Strategy", Cancer Research 60: 3435-3439 (July 2000).	
	C15	Ito, et al., "Induction of TNF- $\alpha$ Gene Expression by Heat Inducible Promotor gadd 153", Jpn. J. Hyperthermic Oncol. 16 (2) (2000).	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Sheet <b>12</b> of <b>24</b>	<b>Application Number</b>	10/733,970
	<b>Filing Date</b>	December 11, 2003
	<b>First Named Inventor</b>	Philip E. Eggers
	<b>Art Unit</b>	3739
	<b>Examiner Name</b>	
<b>Attorney Docket Number</b>		CAL 2-018

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C16	Morrison, A.J., Rush, S.J., and Brown, I.R., "Heat Shock Transcription Factors and the hsp70 Induction Response in Brain and Kidney of the Hyperthermic Rat During Postnatal De	
	C17	Wells, et al., "Heat shock proteins, tumor immunogenicity and antigen presentation: an integrated view", Immunology today, 21 (3): 129-132 (2000).	
	C18	Vekris, et al., "Control of transgene expression using local hyperthermia in combination with a heat-sensitive promoter", J. of Gene Med 2: 89-96 (2000).	
	C19	Fehrenbach, et al., "Role of Heat Shock Proteins in the Exercise Response", Exercise Immunology Review, 5: 57-77 (1999).	
	C20	Dressel, et al., "Enhanced susceptibility to cytotoxic T lymphocytes without increase of MHC class I antigen expression after conditional overexpression of heat shock protein	
	C21	Housby, et al., "Non-Steroidal Anti-Inflammatory Drugs Inhibit The Expression Of Cytokines And Induce HSP70 In Human Monocytes", CYTOKINE, 11 (5) 347-358 (May 1999).	
	C22	(16) Srivastava, et al., "Heat Shock Proteins Come of Age: Primitive Functions Acquire New Role In an Adaptive World" Immunity, 8 (6), pp 657-665 (1998).	
	C23	Edwards, "Apoptosis, the heat shock response, hyperthermia, birth defects, disease and cancer. Where are the common links?", Cell Stress of Chaperones 3 (4): 213-220 (1998).	
	C24	Ménoret, et al., "Heat-Shock Protein-Based Anticancer Immunotherapy: An Idea Whose Time Has Come", Sem. in Oncology 25 (6) 654-660 (Dec 1998).	
	C25	Yanase, et al., "Antitumor Immunity Induction by Intracellular Hyperthermia Using Magnetite Cationic Liposomes", Jpn J. Cancer Res. 89: 775-782, (July 1998).	

<b>Examiner Signature</b>		<b>Date Considered</b>	
---------------------------	--	------------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/733,970
Filing Date	December 11, 2003
First Named Inventor	Philip E. Eggers
Art Unit	3739
Examiner Name	
Attorney Docket Number	CAL 2-018

Sheet

13

of

24

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C26	Melcher, A. Todryk, S. Hardwick, N., Ford, M., Jacobson, M., Vile, R.G., "Tumor Immunogenicity is Determined by the Mechanism of Cell Death via Induction of Heat Shock Protein	
	C27	Satyral, et al., "Negative regulation of the heat shock transcriptional response by HSBPI" Genes & Development 12: 1962-1974 (1998).	
	C28	Albert, M.L. et al., "Dendritic Cells Acquire Antigen from Apoptotic Cells and Induce Class I Restricted CTLs." Nature, 392: 86-89 (5 Mar 1998).	
	C29	Xu, et al., "Intracellular distribution of hsp70 during long duration moderate hyperthermia", Int. J. Hyperthermia 14 (2): 211-225 (1998).	
	C30	Wells, et al., "Hsp72 - mediated augmentation of MHC class I surface expression and endogenous antigen presentation", International Immunology, 10 (5): 609-617(1998).	
	C31	Peper, et al., "A mathematical model of the hsp70 regulation in the cell", Int J. of Hyperthermia, 14 (1): 97-124 (1998).	
	C32	Benndorf, et al., "Cellular Stress Response: Stress Proteins - Physiology and Implications for Cancer", Recent Results in Cancer Research, 143: 129-144 (1997).	
	C33	Speiser et al., "Self Antigens Expressed by Solid Tumors Do Not Efficiently Stimulate Naïve or Activated T Cells: Implications for Immunotherapy", J. Exp. Med. 186 (5): 645-65	
	C34	Tanabe, M., Nakai, A., Kawazoe, Y., and Nagata, K., "Different Thresholds in the Responses of Two Heat Shock Transcription Factors, HSF1 and HSF3*." Journal of Biological Chem	
	C35	Peng, et al., "Purification of immunogenic heat shock protein 70-peptide complexes by ADP-affinity chromatography" J. of Imm. Meth. 204: 13-21 (1997).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>			
		Application Number	10/733,970		
		Filing Date	December 11, 2003		
		First Named Inventor	Philip E. Eggers		
		Art Unit	3739		
		Examiner Name			
Sheet	14	of	24	Attorney Docket Number	CAL 2-018

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C36	Freeman, et al., "Immune system in suicide-gene therapy" (Commentary) The Lancet, 349: 2-3 (Jan 4, 1997).	
	C37	Blachere, et al., "Heat Shock Protein – Peptide Complexes, Reconstituted In Vitro, Elicit Peptide-specific Cytotoxic T Lymphocyte Response and Tumor Immunity", J. Exp. Med, 186 (8): 1315-1322 (1997).	
	C38	Tamura, Y., Peng, P., Liu, K., Daou, M. and Srivastava, P.K., "Immunotherapy of Tumors with Autologous Tumor-Derived Heat Shock Protein Preparations." Science, 278: 117-120 (1997).	
	C39	Cahill, et al., "Transcriptional Repression of the Prointerleukin 1B Gene by Heat Shock Factor 1*", Biological Chem., 271 (40): 24874-2487 (1996).	
	C40	Wei, Y.-Q., Zhao, X., Kariya, Y., Fukata, H., Teshigawara, K., and Uchida, A., "Induction of Autologous Tumor Killing by Heat Treatment of Fresh Human Tumor Cells: Involvement of gd T-cells and Heat Shock Protein 70." Cancer Research, 56: 1104-1110 (1996).	
	C41	Liu, et al., "Letter to Editor", Int J. Hyperthermia, 12 (2): 301-302 (1996).	
	C42	(37) Morimoto, R.I., et al., "The transcriptional regulation of heat shock genes: A plethora of heat shock factors and regulatory conditions." in Stress Inducible Responses, ed. by Feige et al., Springer Verlag, Boston pp. 120, 139-163 (1996).	
	C43	Arnold, et al., "Cross-priming of minor histocompatibility antigen-specific cytotoxic T cells upon immunization with the heat shock protein gp96", J. of Ex. Med. 182: 885-889	
	C44	Suto, R. & Srivastava, P.K., "A Mechanism for the Specific Immunogenicity of Heat Shock Protein-Chaperoned Peptides." Science, 269: 1585-1588 (1995).	
	C45	Li, et al., "Heat shock proteins, thermotolerance, and their relevance to clinical hyperthermia", Int J. Hyperthermia 11 (4) 459-488 (1995).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/733,970
		Filing Date	December 11, 2003
		First Named Inventor	Philip E. Eggers
		Art Unit	3739
		Examiner Name	
Sheet 15 of 24	Attorney Docket Number		CAL 2-018

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C46	(31) Columbano, A., "Cell Death: Current Difficulties in Discriminating Apoptosis From Necrosis in the Context of Pathological Processes in Vivo", Journal of Cellular Biochemi	
	C47	(35) Matzinger, "Tolerance, Danger and the Extended Family." Annu. Rev. Immunol., 12: 991-1044 (1994).	
	C48	Craig, et al., "Heat Shock Proteins and Molecular Chaperones: Mediators of Protein Conformation and Turnover in the Cell" (Meeting Review), Cell, 78: 365-372 (Aug 12, 1994).	
	C49	Huang, et al., "Role of Bone Marrow – Derived Cells in Presenting MHC Class I – Restricted Tumor Antigens", Science 264: 961-965 (3 May 1994).	
	C50	Udono, et al., "Cellular requirements for tumor-specific immunity elicited by heat shock proteins: Tumor rejection antigen gp96 primes CD8+ T cells in vivo", Proc. Natl. Acad. Sci. USA, 91: 3077-3081 (1994).	
	C51	Fajardo, et al., "Endothelial cells and hyperthermia", Int J. Hyperthermia, 10 (3): 347-353 (1994).	
	C52	(32) Georgopoulos, C., Welch, W.J. "Role of the Major Heat Shock Proteins as Molecular Chaperones." Annu. Rev. of Cell Biol., 9: 601-634 (1993).	
	C53	(33) Hendrick, J.P. and Hartl, F.U., "Molecular Chaperone Functions of Heat-Shock Proteins." Annu. Rev. of Biochem., 62: 349-84 (1993).	
	C54	(38) Parsell, D.A. & Lindquist, S., "The Function of Heat-Shock Proteins in Stress Tolerance: Degradation and Reactivation of Damaged Proteins." Annu. Rev. of Genet., 27: 437-496 (1993).	
	C55	Li, Z., and Srivastava, P.K., "Tumor rejection antigen gp96/grp94 is an ATPase: implications for protein folding and antigen presentation." EMBO Journal 12 (8): 3143-3151 (1993).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/733,970
Filing Date	December 11, 2003
First Named Inventor	Philip E. Eggers
Art Unit	3739
Examiner Name	
Attorney Docket Number	CAL 2-018

Sheet 16 of 24

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C56	Udono, et al., "Heat shock protein 70-associated peptides elicit specific cancer immunity", J. of Exp. Med. 178: 1391-1396 (1993). [ABSTRACT ONLY]	
	C57	Marquez, et al., "HSP 70 Synthesis In Clinical Hyperthermia Patients: Preliminary Results of A New Technique", J. Radiation Oncology Biol Phys., 28: 425-430 (1993).	
	C58	Blachere, et al., "Heat Shock Protein Vaccines Against Cancer", J. of Immunology 14: 352-356 (1993).C62.	
	C59	Paulus, et al., "Heat Shock Protein Response in a Prostate Tumor Model to Interstitial Thermotherapy: Implications for Clinical Treatment", The Prostate 23: 263-270 (1993).	
	C60	(36) Morimoto R.I., "Perspective: Cells in Stress: Transcriptional Activation of Heat Shock Genes." Science 259: 1409-10 (1993).	
	C61	Ciocca, et al., "Response of human breast cancer cells to heat shock and chemotherapeutic drugs." Cancer Res. 52: 3648-3654 (July 1, 1992).	
	C62	Davidoff, et al., "Immune response to p53 is dependent upon p53/HSP70 complexes in breast cancers", Proc. Natl. Acad. Sci USA 89: 3439-3442 (April 1992).	
	C63	(39) Schlesinger, M.J., "Minireview: Heat Shock Proteins." Journal of Biological Chemistry 265: 12111-12114 (1990).	
	C64	Nowak, Jr., "Heat Shock RNA Levels in Brain and Other Tissues After Hyperthermia and Transient Ischemia", J. of Neurochem. 54: 451-458 (1990).	
	C65	(30) Lindquist, S., "The Heat Shock Response." Annu. Rev. Biochem., 55: 1151-91 (1986).	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/733,970
		Filing Date	December 11, 2003
		First Named Inventor	Philip E. Eggers
		Art Unit	3739
		Examiner Name	
Sheet 17 of 24	Attorney Docket Number CAL 2-018		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C66	Srivastava, et al., "Tumor Rejection Antigens of Chemically Induced Sarcomas of Inbred Mice", Proc. Natl. Acad Sci USA 83 (10) 3407-3411 (1986).	
	C67	Tomasovic, et al., "Heat stress proteins and experimental cancer metastasis", Int. J. Hyperthermia 2(3) 253-266 (1986).	
	C68	Li, "Thermal Biology and Physiology in Clinical Hyperthermia: Current Status and Future Needs", Cancer Rev. (suppl.) 44: 4886s – 4893s (1984).	
	C69	(14) Ritossa, "A New Puffing Pattern Induced By Temperature Shock and DNP in Drosophila" Experientia, 18; 571-573 (1962).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number 10/733,970

Filing Date December 11, 2003

First Named Inventor Philip E. Eggers

Art Unit 3739

Examiner Name

Attorney Docket Number CAL 2-018

Sheet 18 of 24

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	D1	US- 6,319,251	11-20-2001	Tu, et al.	
	D2	US- 6,206,916	03-27-2001	Furst	
	D3	US- 6,203,508	03-20-2001	Ren, et al.	
	D4	US- 6,200,307	03-13-2001	Kasinkas, et al.	
	D5	US- 6,200,259	03-13-2001	March	
	D6	US- 6,197,296	03-06-2001	Davies, et al.	
	D7	US- 6,196,996	03-06-2001	Tierstein	
	D8	US- 6,192,095	02-20-2001	Sekine, et al.	
	D9	US- 6,190,404	02-20-2001	Palmaz, et al.	
	D10	US- 6,190,379	02-20-2001	Heuser, et al.	
	D11	US- 6,190,355	02-20-2001	Hastings	
	D12	US- 6,190,302	02-20-2001	Mosseri, et al.	
	D13	US- 6,187,037	02-13-2001	Satz	
	D14	US- 6,183,409	02-06-2001	Armini	
	D15	US- 6,179,867	01-30-2001	Cox	
	D16	US- 6,179,824	01-30-2001	Eggers, et al.	
	D17	US- 6,179,789	01-31-2001	Tu, et al.	
	D18	US- 6,176,872	01-23-2001	Miksza	
	D19	US- 6,165,209	12-26-2000	Patterson, et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/733,970
Filing Date	December 11, 2003
First Named Inventor	Philip E. Eggers
Art Unit	3739
Examiner Name	
Attorney Docket Number	CAL 2-018

Sheet 19 of 24

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	D20	US- 5,078,736	01-07-1992	Behl	
	D35	US- 6,319,242	11-20-2001	Patterson, et al.	
	D36	US- 6,193,669	02-27-2001	Degany, et al.	
	D37	US- 5,830,179	11-03-1998	Mikus, et al.	
	D38	US- 5,824,005	10-20-1998	Motamedi, et al.	
	D39	US- 5,527,334	06-18-1996	Stack, et al.	
	D40	US- 5,098,429	03-24-1992	Sterzer	
	D41	US- 5,087,256	02-11-1992	Taylor, et al.	
	D42	US- 5,057,095	10-15-1991	Fabian	
	D43	US- 4,979,948	12-25-1990	Geddes, et al.	
	D44	US- 4,979,518	12-25-1990	Itoh, et al.	
	D45	US- 4,807,620	02-28-1989	Strul, et al.	
	D46	US- 4,695,713	09-22-1987	Krumme	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> "Number" <sup>4</sup> "Kind Code" <sup>5</sup> (if known)				
	D21	EP 1 036 574 A1	09-20-2000	Diamantopoulos		
	D22	0 392 837	10-17-1990	Geddes, et al.		
	D23	WO 00/57818	10-05-2000	Hnojewyj, et al		

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Sheet 20 of 24	Application Number	10/733,970
	Filing Date	December 11, 2003
	First Named Inventor	Philip E. Eggers
	Art Unit	3739
	Examiner Name	
Attorney Docket Number		CAL 2-018

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	D24	(48) "Drug-Coated Stents Poised for Growth", Cardiovascular Device Update 7: 8-10 (September 2001).	
	D25	(47) Simonsen, "Percutaneous intervention arena still expanding for heart disease." Cardiovascular Device Update 7 (5): 1-7 (May 2001).	
	D26	(18) Holmes, Jr., "In-Stent Restenosis", Reviews in Cardiovascular Medicine, 2: 115-119 (2001).	
	D27	(53) Stefanadis, C., et al., "Hyperthermia of Arterial Stented Segments by Magnetic Force: A New Method to Eliminate Intimal Hyperplasia", Journal of the American College of Cardiology 37 (2) Supp. A: 2A-3A (2001).	
	D28	(49) Thury, A., et al., "Initial Experience With Intravascular Sonotherapy For Prevention of In-Stent Restenosis Safety and Feasibility", J. of Am. College of Cardiology 37 (2) Supplement A (2000). [Meeting Abstract]	
	D29	Neschis, et al., "Thermal Preconditioning Before Rat Arterial Balloon Injury", Arterioscler. Thromb. Vasc. Biol. 18: 120-126 (1998).	
	D30	Lafont, et al., "Remodelling: therapeutic opportunities", Semin. Intervent. Cardiol. 2: 177-182 (1997).	
	D31	Mukherjee, et al., "Association of Antibodies to Heat-Shock Protein-65 with Percutaneous Transluminal Coronary Angioplasty and Subsequent Restenosis", Lancet 75 (2): 258-260 (1996).	
	D32	(10) Meyer, et al., "Stent Wire Cutting During Coronary Directional Arterectomy", Clin. Cardiol. 16: 450-452 (1993).	
	D33	(17) Kaplan, et al., "Healing After Arterial Dilatation With Radiofrequency Thermal and Nonthermal Balloon Angioplasty Systems", Journal of Investigative Surgery 6: 33-52 (1993).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Sheet <b>21</b> of <b>24</b>	<b>Application Number</b>	10/733,970
	<b>Filing Date</b>	December 11, 2003
	<b>First Named Inventor</b>	Philip E. Eggers
	<b>Art Unit</b>	3739
	<b>Examiner Name</b>	
<b>Attorney Docket Number</b>		CAL 2-018

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	D34	(19) Bowerman, et al., "Disruption of a Coronary Stent During Artherectomy for Restenosis", Catherization and Cardiovascular Diagnosis 24: 248-251 (1991).	

<b>Examiner Signature</b>		<b>Date Considered</b>	
---------------------------	--	------------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>			
		Application Number	10/733,970		
		Filing Date	December 11, 2003		
		First Named Inventor	Philip E. Eggers		
		Art Unit	3739		
		Examiner Name			
Sheet	22	of	24	Attorney Docket Number	CAL 2-018

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	E1	(24) Shui, C., and Scutt, A., "Mild Heat Shock Induces Proliferation, Alkaline Phosphatase Activity, and Mineralization in Human Bone Marrow Stromal Cells and Mg-63 Cells In Vitro." Journal of Bone and Mineral Research 16: 731-741 (2001).	
	E2	Meyer, R.A., et al., "Delayed union of femoral fractures in older rats: decreased gene expression." BMC Musculoskeletal Disorders 2: 2, available at <a href="http://www.biomedcentral.com/1471-2474/2/2">http://www.biomedcentral.com/1471-2474/2/2</a> (2001).	
	E3	(25) Huang, C.-C., Chang, W.H., and Liu, H.-C.. "Study on the Mechanism of Enhancing Callus Formation of Fracture by Ultrasonic Stimulation and Microwave Hyperthermia." Biomed. Eng. Appl. Basis Comm. 10: 14-17 (1998).	
	E4	Farley, D., "New Ways to Heal Broken Bones", FDA Consumer Mag. at <a href="http://www.fda.gov/foia/features/396_bone.html">http://www.fda.gov/foia/features/396_bone.html</a> (1996).	
	E5	Ohashi, "The effect of drilling parameters on bone", J. of Materials Sci.: Materials in Medi, 5:225-231 (1994).	
	E6	(23) Leon, et al., "Effects of Hyperthermia on Bone. II. Heating of Bone in vivo and Stimulation of Bone Growth." Int. J. Hyperthermia 9: 77-87 (1993).	
	E7	(22) Wootton, P., Jennings, P., King-Underwood, C., and Wood, S. J., "The Effect of Intermittent Local Heating on Fracture Healing in the Distal Tibia of the Rabbit" International Orthopedics, 14:189-193 (1990).	
	E8	Giffin, D.J., "The Effect of Power Instrumentation on Bone Healing" J. of Foot Surg. 20 (2); 81-83 (1981).	
	E9	Jacobs et al., "The Effect of Heat on Bone Healing", Arch. Surg., 104; 687-691 (1972).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/733,970
Filing Date	December 11, 2003
First Named Inventor	Philip E. Eggers
Art Unit	3739
Examiner Name	
Attorney Docket Number	CAL 2-018

Sheet

23

of

24

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	F1	(28) Zugel, U., Sponaas, A.M., Neckermann, J., Schoel, B., and Kaufmann, S. H.E., "gp96-Peptide Vaccination of Mice Against Intracellular Bacteria." Infection and Immunity, 69: 4164-4167 (2001).	
	F2	Sponaas, et al., "Immunization with gp96 from Listeria monocytogenes – Infected Mice is Due to N-Formylated Listerial Peptides", J. of Immun. 167:6480-6486 (2001).	
	F3	Fan, et al., "Recognition of a Sequestered Self Peptide by Influenza Virus – Specific CD8+ Cytolytic T Lymphocytes", J. of Imm. 164: 1669-1680 (2000).	
	F4	(29) Zugel, U., and Kaufmann, S.H.E., "Role of Heat Shock Proteins in Protection from and Pathogenesis of Infectious Diseases." Clinical Microbiology Reviews, 12: 19-39 (1999).	
	F5	Rosenkrands, et al., "Differential T-Cell Recognition of Native and Recombinant Mycobacterium tuberculosis GroES", Infection and Imm. 67 (11): 5552-5558 (1999).	
	F6	(27) Heikema, A., Agsteribbe, E., Wilschut, J., Huckriede, A., "Generation of heat shock protein-based vaccines by intracellular loading of gp96 with antigenic peptides." Immunology Letters, 57: 69-74. (1997)	
	F7	(26) Neiland, Thomas J. F., M. C. Agnes A. Tan, Monique Monnee-van Muijen, Frits Koning, Ada M. Kruisbeek, and Grada M. van Bleek, "Isolation of an immunodominant viral peptide that is endogenously bound to the stress protein gp96/GRP94." Proc. Nat'l Acad. Sci. USA, 93: 6135-6139 (1996).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/733,970
Filing Date	December 11, 2003
First Named Inventor	Philip E. Eggers
Art Unit	3739
Examiner Name	
Attorney Docket Number	CAL 2-018

Sheet 24

of 24

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	G1	US- 5,494,035	02/27/1996	Leuthold, et al.	
	G2	US- 5,690,847	11/25/1997	LaValley, et al.	
	G3	US- 5,611,798	03/18/1997	Eggers	
	G4	US- 5,456,718	10/10/1995	Szymaitis	
	G5	US- 5,378,879	01/03/1993	Monouvoukas	
	G6	US- 5,329,085	07/12/1994	Cowell, et al.	
	G7	US- 5,300,750	05/05/1994	Carter, Jr. et al.	
	G8	US- 5,134,370	07/28/1992	Jefferts, et al.	
	G9	US- 5,057,095	10/15/1991	Fabian	
	G10	US- 4,364,390	12/21/1982	Shaw	
	G11	US- 4,364,377	12/21/1982	Smith	
	G12	US- 4,209,017	06/24/1980	Shaw	
	G13	US- 4,207,896	06/17/1980	Shaw	
	G14	US- 4,091,813	05/30/1978	Shaw, et al.	
	G15	US- 4,074,249	02/14/1978	Minasy	
	G16	US- 3,587,583	06/28/1971	Greenberg	
	G17	US- 3,422,816	01/21/1969	Robinson, et al.	
		US-			
		US-			

**FOREIGN PATENT DOCUMENTS**

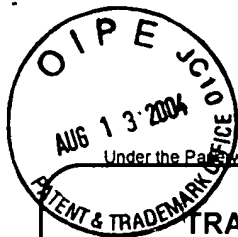
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> "Number" <sup>4</sup> "Kind Code" <sup>5</sup> (if known)				

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



1fw

PTO/SB/21 (05-03)

Approved for use through 04/30/2003. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/733,970	
	Filing Date	12/11/2003	
	First Named Inventor	Eggers, Philip E.	
	Art Unit	3739	
	Examiner Name		
Total Number of Pages in This Submission	46	Attorney Docket Number	CAL 2-018

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Change of Correspondence Address	<input type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	Remarks	
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		
<b>SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT</b>		
Firm or Individual name	Mueller and Smith, LPA	
Signature		
Date	10 August 2004	

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name	Gail James		
Signature		Date	10 August 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.